

# Internet-Based Regulatory Reporting and Information Management System



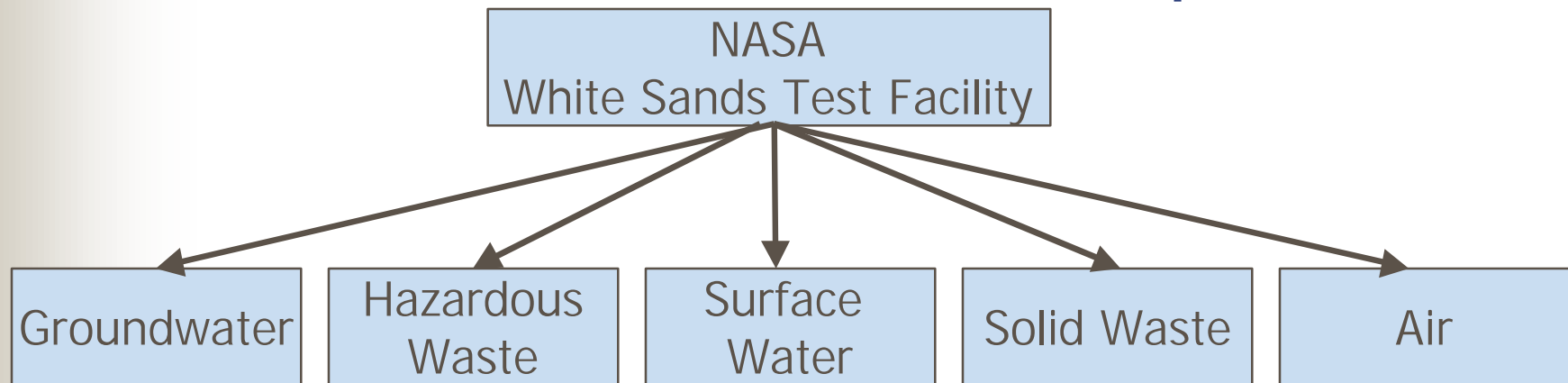
NASA White Sands Test Facility  
State of New Mexico Environment Department  
US EPA  
(Project XL)

# NASA White Sands Test Facility

- Provides testing services to NASA for the United States space program
- The primary WSTF mission is to develop, qualify, and test the limits of spacecraft propulsion systems and subsystems



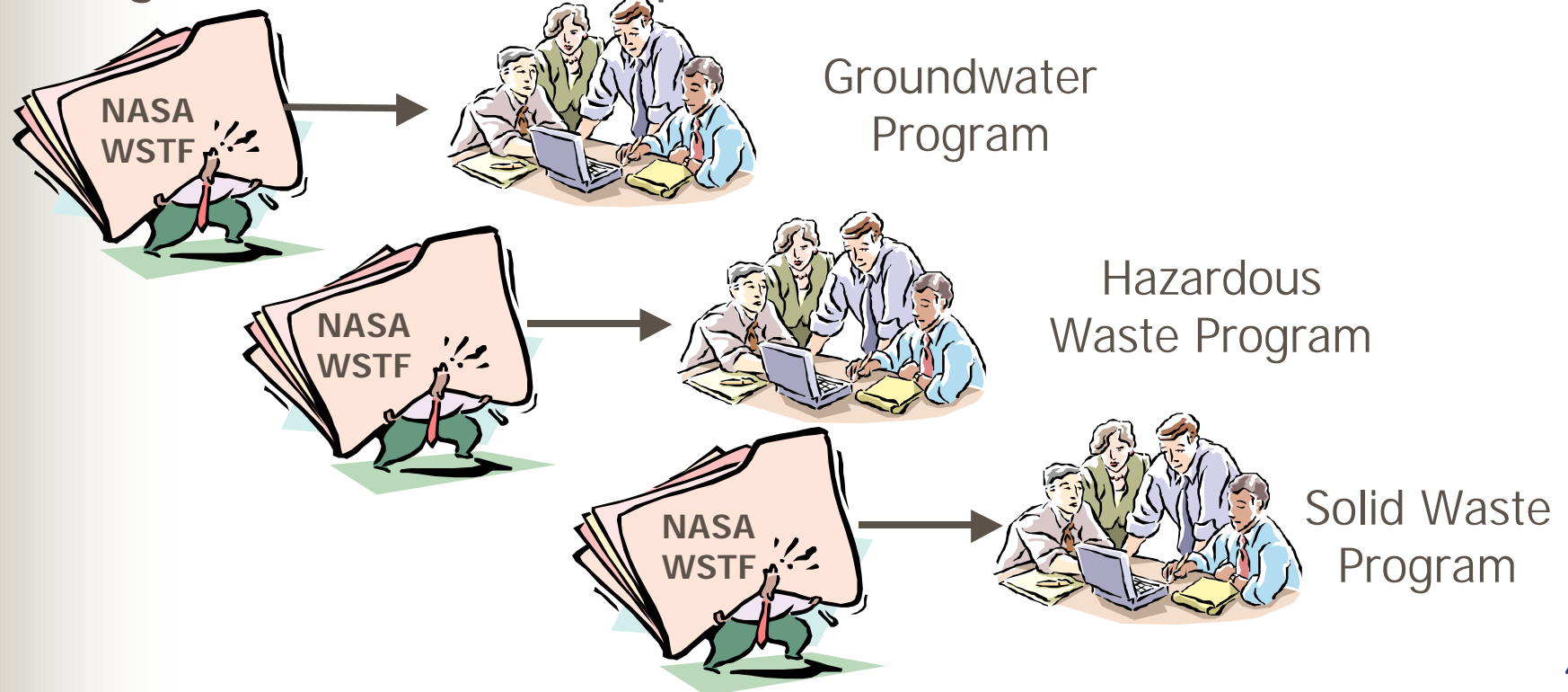
# WSTF - Environmental Compliance



- Extensive groundwater contamination plume
- 215+ groundwater monitoring wells & multi-port sampling zones
- 4 RCRA permitted operating units
- 5 post-closure care hazardous waste management units
- Extensive air quality permit requirements
- Landfill post-closure care permit
- Several groundwater discharge plans

# WSTF - Regulatory Reporting Burden

- Extensive paper reporting deliverables (130+)
- 10+ FTEs needed to prepare cross-media compliance documentation and regulatory reports
- Rigorous QA and QC procedures





# WTSF - Goal Statement

Simplify and Streamline  
the process for fulfilling the  
regulatory reporting deliverable  
requirements for all media

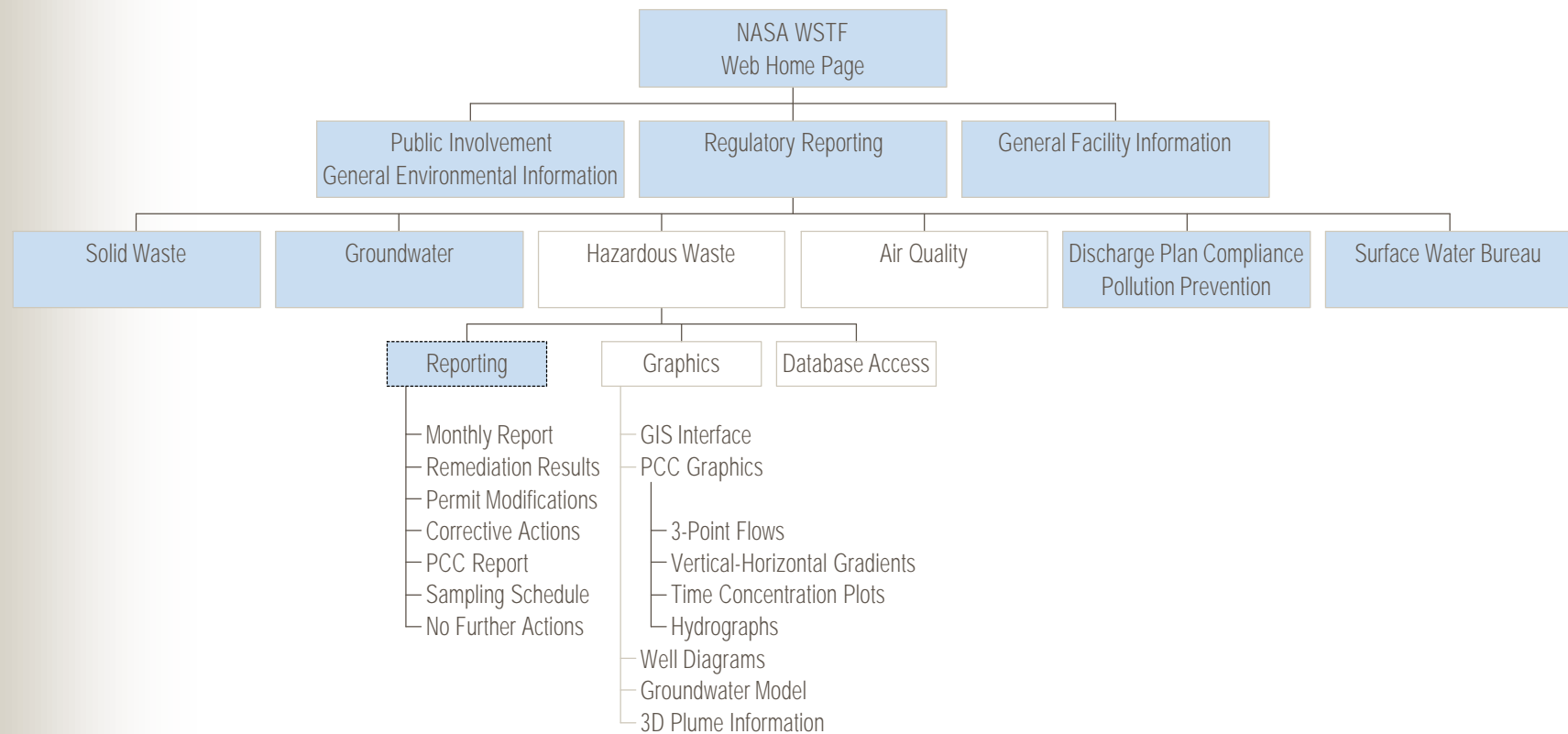


# WTSF - Innovative Solution

Centralized, Multi-Media, Web-Based Information Management and Compliance Reporting System

- All deliverables stored and managed in a central web-based system
- E-mail used to satisfy notification procedures
- E-mail to include a hypertext link to specific documents
- Web and e-mail systems incorporate PKI features to satisfy signature, certification and non-repudiation procedures as required by regulations
- Electronic archival of historical documentation

# WTSF – System Design





# WSTF – Security Architecture

NASA will use commercially available PKI services to:

- Ensure secure access control
- Ensure non-repudiation
- Authenticate senders/recipients of information
- Ensure confidentiality between parties
- Attach legally defensible digital signatures to electronic forms, reports, and data

A secure hash function procedure will be used to ensure that e-mail notifications, web documents and digital signatures are authentic and not appended after submission



# WSTF - System Benefits

- Saves resources: document prep. time, white paper usage, and triplicate reproduction requirements
- Increases resources for compliance/remediation projects
- Enhances information and resource sharing across regulatory media programs
- Provides real-time desktop access to site-specific environmental compliance information
- Enhances visualization of site conditions (graphics)
- Enhances public awareness of and participation in facility compliance initiatives
- Consolidates multi-media compliance information

# Future "Network"

